

DETAILED ACTION

The instant application having Application No. 10/596331 filed on 6/9/06 is presented for examination by the examiner.

Information Disclosure Statement

The references cited in the Search Report mailed 11/04/05 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been received.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the inventive method as described in the specification. The drawings mainly consist of just empty boxes with numeral references attached. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the

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drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it contains drawing references. Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: the specification lacks the appropriate section headers.

Appropriate correction is required.

Claim Objections

Claims 2, 3, 13, 14 are objected to because of the following informalities:

As per claims 2 and 14, the reference (a) should be omitted because it is listed after a set of signal dependent properties but (a) is used to indicate a method step in claim 1. Examiner suggests removing all the letter referencing in the claim to avoid confusion between what are method steps and what are drawing references.

As per claim 3, the phrase "said other" lack antecedent basis. Examiner assumes it is intended to reference "another".

As per claim 13, having multiple references i.e. ("a or w" and "12 or 14") creates problems of definitively defining the scope of the claim. Examiner suggests removing all the letter referencing in the claim to avoid confusion.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 30 is rejected under 35 U.S.C. 101 as directed to non-statutory subject matter of software, per se. The claim lacks the necessary physical articles or objects to constitute a machine or manufacture within the meaning of 35 U.S.C. 101. The claim lacks the required language necessary for claims directed to computer programs. The program needs to be stored on computer readable medium and executed by a processor.

Claim 28 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim fails to place the invention squarely within one statutory class of invention. Energy is not one of the four categories of invention and therefore this claim(s) is/are not statutory.

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Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-11, 13-25, and 28-30, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 1 and 13, the phrase "simplifying distribution" raises the question as to what the Applicant claims as his/her invention. The phrase could be interpreted to mean distribution of a processed media signal is known and the invention is simplifying the method. If that is applicant's intent, the known steps should be included in the preamble. If all of the claimed material is being claimed as novel, then the words simplifying should be omitted. Appropriate correction is required.

As per claim 5, the phrase "simplifying watermarking" is used. This creates the same problem of particularly pointing out the claimed subject matter as in claims 1 and 13.

The dependent claims 2-11, 14-25, and 28-30 all likewise rejected for at least not correcting the problem of the independent claims.

The term "close" in claims 6 and 10 is a relative term which renders the claim indefinite. The term "close" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 28-30 are improper dependent claims written in independent form. As dependent claims they should further limit the scope of the parent claims. Because the

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parents claims are directed to a method and device, the dependent claims should respectively further limit the method and device. Claim 28 is directed to a signal. Claim 29 is directed to a system. Claim 30 is directed to a computer program product.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by USP Application Publication 2002/0027994 to Katayama et al., hereinafter Katayama.

As per claim 1, Katayama teaches a method of simplifying distribution of a processed media signal comprising the steps of:

- (a) determining at least one set of signal dependent properties of a media signal (0022),
- (b) embedding signal dependent properties in the media signal (0022), and
- (c) storing the thus modified media signal, such that the signal dependent properties can be extracted and used for processing the media signal when the media signal is to be distributed (0022).

As per claim 2, Katayama teaches one set of signal dependent properties is to be used for simplifying the compression of the media signal according to a first compression scheme (0018, compressing after embedding).

As per claim 3, Katayama teaches the step of determining comprises determining another set of signal dependent properties of the media signal that can be used for simplifying the compression of the media signal according to a second compression scheme and the step of embedding comprises embedding said other set of signal dependent properties in the media signal (0018, compressing before embedding is a second scheme).

As per claim 4, Katayama teaches one set of signal dependent properties is chosen from a group comprising: perceptual properties, masking thresholds, quantization levels, scale factors and run-levels (0022, frequency is a perceptual property).

As per claim 5, Katayama teaches one set of signal dependent properties is to be used for simplifying watermarking the media signal (0022).

As per claim 6, Katayama teaches the step of embedding the set of signal dependent properties is done using a reversible watermarking technique, where the output signal from the embedding has the same format as the input signal for the embedding, and where the original signal can be reconstructed in an at least close to bit-exact manner (0017).

As per claim 7, Katayama teaches the embedding is non-reversible (0028).

As per claim 8, Katayama teaches the embedding is done in a buried data channel (0028).

As per claim 9, Katayama teaches the steps of:

- (d) retrieving the modified media signal (Fig. 5b),
- (e) extracting at least one set of signal dependent properties from the modified media signal (Fig. 5b, 306),
- (f) processing said media signal using said set of signal dependent properties (Fig. 5b., 308), and
- (g) providing the thus processed media signal for at least one recipient (Fig. 5b).

As per claim 10, Katayama teaches the original media signal is restored in an at least close to bit-exact manner before processing (0017).

As per claim 11, Katayama teaches the steps of determining, embedding and storing are performed before a request for delivery of the media signal is received and the steps of retrieving, extracting, processing and providing are performed at the time of receiving a request for delivery of the media signal (Fig. 5).

As per claim 12, Katayama teaches the steps of:

- (d) retrieving the modified media signal (Fig. 5b),
- (e) extracting at least one set of signal dependent properties from the modified media signal (Fig. 5b, 306),
- (f) processing said media signal using said set of signal dependent properties (Fig. 5b., 308), and

(g) providing the thus processed media signal for at least one recipient
(Fig. 5b).

As per claim 13, Katayama teaches a device for simplifying distribution of a processed media signal comprising the steps of:

(a) determining at least one set of signal dependent properties of a media signal (0022),
(b) embedding signal dependent properties in the media signal (0022), and
(c) storing the thus modified media signal, such that the signal dependent properties can be extracted and used for processing the media signal when the media signal is to be distributed (0022).

As per claim 14, Katayama teaches one set of signal dependent properties is to be used for simplifying the compression of the media signal according to a first compression scheme (0018, compressing after embedding).

As per claim 15, Katayama teaches the step of determining comprises determining another set of signal dependent properties of the media signal that can be used for simplifying the compression of the media signal according to a second compression scheme and the step of embedding comprises embedding said other set of signal dependent properties in the media signal (0018, compressing before embedding is a second scheme).

As per claim 16, Katayama teaches one set of signal dependent properties is chosen from a group comprising: perceptual properties, masking thresholds,

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quantization levels, scale factors and run-levels (0022, frequency is a perceptual property).

As per claim 17, Katayama teaches one set of signal dependent properties is to be used for simplifying watermarking the media signal (0022).

As per claim 18, Katayama teaches the step of embedding the set of signal dependent properties is done using a reversible watermarking technique, where the output signal from the embedding has the same format as the input signal for the embedding, and where the original signal can be reconstructed in an at least close to bit-exact manner (0017).

As per claim 19, Katayama teaches the embedding is done in a buried data channel (0028).

As per claim 20, Katayama teaches an extracting unit arranged to retrieve the modified media signal from the media signal storage and extract at least one set of signal dependent properties (Fig. 5b, 306),

at least one signal processing unit arranged to process said media signal using said set of signal dependent properties (Fig. 5b., 308), and

means for providing the processed media signal for at least one recipient (Fig. 5b).

As per claim 21, Katayama teaches the extracting unit comprises a reversible watermarking decoding unit (0017).

As per claim 22, Katayama teaches the embedding is done in a buried data channel (0028).

As per claim 23, Katayama teaches one signal processing unit is a watermark embedding unit (Fig. 5, 302).

As per claim 24, Katayama teaches one signal processing unit is a signal compression unit (Fig. 5, 501).

As per claim 25, Katayama teaches the steps of determining, embedding and storing are performed before a request for delivery of the media signal is received and the steps of retrieving, extracting, processing and providing are performed at the time of receiving a request for delivery of the media signal (Fig. 5a).

As per claim 26, Katayama teaches distributing a media signal comprising: an extracting unit arranged to retrieve a modified media signal from a media signal storage (Fig. 5, 306), which modified media signal has been obtained by embedding at least one set of signal dependent properties related to the media signal in said media signal (Fig. 5, (a)), and extract at least said one set of signal dependent properties, at least one signal processing unit (Fig. 5, 308) arranged to process said media signal using said set of signal dependent properties, and means for providing the processed media signal for at least one recipient (Fig. 5, (b)).

As per claim 27, Katayama teaches a media signal storage of the modified media signal (0042).

As per claim 28, Katayama teaches a signal carrying modified media signal (0017).

As per claim 29, Katayama teaches a system for distributing a media signal (0042).

As per claim 30, Katayama teaches a computer program product (0047).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is listed on the enclosed PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is (571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./

Examiner, Art Unit 2431

/Syed Zia/

Primary Examiner, Art Unit 2431